Air Quality Permitting Program
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FACT SHEET FOR

WHEELABRATOR GLOUCESTER COMPANY, LP

APPLICATION FOR MODIFICATION TO A

FEDERAL

PREVENTION OF SIGNIFICANT DETERIORATION (PSD) OF AIR QUALITY PERMIT

AND

PRECONSTRUCTION PERMIT (PCP) FOR

WHEELABRATOR GLOUCESTER COMPANY, LP

FOR ITS
575 TONS PER DAY MUNICIPAL SOLID WASTE INCINERATION FACILITY

LOCATED IN

THE CITY OF WESTVILLE (GLOUCESTER COUNTY), NEW JERSEY

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Lou Mikolajczyk, Chief
Bureau of Preconstruction Permits
Date: April 16, 2003

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A. FACILITY DESCRIPTION

Wheelabrator Gloucester Company, L. P. (WGC) is proposing a modification to its current Federal Prevention of Significant Deterioration (PSD) of air quality permit and Preconstruction permit to remove the less stringent Carbon Monoxide emission limits in the current air permit. The permit is for the two existing 287.5 tons per day municipal solid waste combustors (MWC) at its Resource Recovery Facility located in the City of Westville, Gloucester County, NJ. The facility has two 287.5 tons per day municipal solid waste incinerators (also called combustors), one lime storage silo, and ash handling and removal system. Air pollution control equipment for each of the MWC consists of dry scrubber (Spray Dryer Absorber), activated carbon injection system, fabric filtration system and Selective Non Catalytic Reduction System (SNCR).

B. DESCRIPTION OF MODIFICATIONS

The current air permit for WGC contains two separate emission limits for Carbon Monoxide (CO). These are the CO emission limit of 400 ppmdv @ 7% O2 that is based on one-hour average compliance, and the emission limit of 100 ppmdv @ 7% O2 that is based on rolling four-hour average compliance. The current permit also requires a mass emission rate for carbon monoxide of 45.5 lb/hr, based on any 1-hour period. WGC wishes to remove the 400 ppmdv @ 7% O2 and the 45.5 lb/hr mass emission limit and add the more stringent mass emission limit of 11.3 lb/hr. The new limit of 11.3 lb/hr is consistent with the federal limit of 100 ppmvd @7% O2 specified by 40CFR62 Subpart FFF. This change will not result in any increase of CO emissions.

The following changes will be made to the current combined PSD/PCP air permit of Wheelabrator Gloucester Company:

1. Remove the CO emission limit of 400 ppmdv @7% O2 that was based on one-hour average compliance limit.

2. Remove the mass emission rate for carbon monoxide of 45.5 lb/hr.

3. Add a mass emission rate for carbon monoxide of 11.3 lb/hr corresponding to 100 ppmvd @7% O2.

C. AIR CONTAMINANT EMISSIONS

There will not be any increase in the emissions rates of other air pollutants emitted by the facility. WGC is proposing to decrease its NOx emission rates form 290 to 205 ppmvd @7% O2, from those present in the current permit, to comply with federal New Source Performance Standards (NSPS) codified at 40 CFR 62, subpart FFF.

D. AIR POLLUTION CONTROL TECHNOLOGIES

WGC has a spray dryer absorber for controlling SO_2, H_2SO_4 and other acid gasses, a fabric filter to control PM and PM_{10}, and a carbon injection system to control mercury emissions.

In the year 2000, WGC installed an SNCR for control of NOx emissions. The SNCR system injects urea into each furnace section of the boiler. The urea reacts with NOx to form Nitrogen and Water. Urea injection rates are automatically controlled by feedback signals from existing NOx analyzers to ensure that NOx emissions are controlled below the 205 ppmvd @7% O2 limit specified at 40CFR62 Subpart FFF. The equipment includes an SNCR system, a 6,000 gallon tank for storage of concentrated urea, a circulation module, two metering modules (one for each boiler), two distribution modules per boiler (four total), and eight two-fluid nozzle injectors per boiler (16 total).

E. APPLICABLE REGULATIONS

1. Prevention of Significant Deterioration (PSD) of Air Quality

WGC is an existing PSD facility because it is one of the 28 named PSD sources and currently has the potential to emit more than 100 tpy of NOx and SO2. The facility is not proposing any increase in emissions.

2. Non-Attainment New Source Review (NSR)

The WGC is located in Gloucester County, a designated ozone non-attainment area. The WGC is not determined to be subject to Non-attainment New Source Review (NSR) as it is not proposing any increase in emissions.

3. Other Regulatory Requirements

a. Federal Regulations

New Source Performance Standards (NSPS)

The WGC is subject to the following Federal NSPS codified at 40 CFR 60 and 40 CFR 62:

- 40 CFR 60 Subpart Cb, Emission Guidelines and Compliance Times for Large Municipal Waste Combustors Constructed on or Before September 20, 1994.

- 40 CFR 62 Subpart FFF – Federal Plan for Large Municipal Waste Combustors Constructed on or Before September 20, 1994.

The emission limitations of 11.3 lb/hr for CO, proposed by the WGC satisfy the NSPS requirements of 100 ppmvd @7% O2.

In addition to this, WGC will comply with all the NSPS applicable requirements for other air pollutants.

Maximum Achievable Control Technology (MACT)

The facility is a potentially major source of Hazardous Air Pollutant (HAP). It is not proposing increase in the emissions of any HAP.

b. New Jersey Regulations

The facility is subject to New Jersey Air Pollution Control Regulations, codified in N.J.A.C. 7:27-1 et seq. for air pollution control, and the New Jersey Ambient Air Quality Standards (NJAAQS). The Department is satisfied that the proposed CO emission rate of 11.3 lb/hr satisfies the New Jersey regulations.

F. TESTING AND MONITORING REQUIREMENTS

The WGC is required to conduct stack testing to demonstrate the ability of the facility to operate within the approved air contaminant emission limitations. In addition, the facility is equipped with Continuous Emission Monitors (CEM) and recorders for NO_x, SO_2, CO and opacity. The scope of the stack testing and CEMS is detailed in the draft compliance plan.